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Docket No.: E4355.0002  
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Ivailo E. Stanimirov et al.

Application No.: 10/031,592

Confirmation No.: 6275

Filed: January 23, 2002

Art Unit: 2854

For: POLYCHROMATIC PRINTED CORKS  
AND METHOD FOR MAKING THE SAME

Examiner: M. L. Ferguson

**APPEAL BRIEF**

MS Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is a resubmission of the Appeal Brief filed July 24, 2006, revised in light of the Notification of Non-Compliant Appeal Brief mailed August 22, 2006.

No additional fee is required.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

- I. Real Party In Interest
- II Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments
- V. Summary of Claimed Subject Matter
- VI. Grounds of Rejection to be Reviewed on Appeal
- VII. Argument
- VIII. Claims
- IX. Evidence
- X. Related Proceedings
- Appendix A Claims
- Appendix B Evidence

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

CORTEC OOD

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

### III. STATUS OF CLAIMS

#### A. Total Number of Claims in Application

There are 9 claims pending in application.

#### B. Current Status of Claims

1. Claims canceled: 1, 9
2. Claims withdrawn from consideration but not canceled: 0
3. Claims pending: 2-8, 10-11
4. Claims allowed: 2-8
5. Claims rejected: 10-11

#### C. Claims On Appeal

The claims on appeal are claims 10-11.

### IV. STATUS OF AMENDMENTS

Applicants did not amend the application after Final Rejection.

### V. SUMMARY OF CLAIMED SUBJECT MATTER

Natural cork has a pliable and non calibrated surface. When used to close an opening in a wine bottle, it is in cylindrical form. These characteristics make the application of decorations to the cork surface by any method difficult. Those

difficulties are magnified should it be attempted to apply a multicolored image to the cylindrical cork surface.

The Applicants discovered how to overcome the inherent difficulties of applying a multicolored image to a cylindrical natural cork surface. Their printing process is novel and unobvious, and claims to the process have been allowed. The product achieved, a polychromatically decorated non-calibrated cylindrical natural cork is the subject of this appeal.

There are two independent claims. Claim 10 is a product-by-process claim specifying the process of allowed claim 2, which is an original claim, thereby providing bases, which is also provided by the description from page 3, line 9 from the bottom to page 6, line 4. Claim 11 finds basis on page 3, lines 11 and 20-21.

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) over Sayre (US 5,654,022) in view of Lauer (US 6,616,997) – sole rejection advanced in the final rejection mailed February 24, 2006.

#### VII. ARGUMENT

##### **Claims 10 and 11 are unobvious over Sayre in view of Lauer**

This application should have been allowed in full a very long time ago. In the first merits Action, the process claims were allowed and the product claim rejected. The Examiner then offered to allow the case if the product claim was cancelled. Applicants declined but the Examiner “misunderstood” and cancelled the claim.

Rather than correct the misunderstanding, the Examiner forced Applicants to Petition to achieve reinstatement of the product claim. Applicants added a product-by-process claim (claim 10) which the Examiner allowed twice. To expedite allowance, Applicants then cancelled the traditional product claim but the Examiner responded by withdrawing the allowance of the product-by-product claim. Accordingly, Applicants then restored the cancelled product claim (as claim 11) to the application and submitted a communication explaining why the references did not render the invention obvious, that the invention met a long felt need and also illustrated the product. A particularly frustrating aspect of the application process is that the Examiner waited until issuing the current Final Rejection (the 5th Office Action in this case) to assert a novel interpretation of the rejected claims and then refused to allow Applicants to revise the claims to eliminate any possibility that the claims could be misinterpreted as the Examiner had done. The correct meaning of the claims is discussed below.

There are two product claims on appeal. Claim 11 calls for a cork having a printed image on its non-calibrated cylindrical surface, in which the image is polychromatic. Appealed Claim 10 recites the product as that of the method of allowed claim 2. This product, whether defined in conventional product language or in product-by-process language, is neither taught nor suggested by the combination of references on which the Examiner has relied. Indeed, the rejection on appeal is predicated on a misreading of the claims.

### **1. The Examiner's Rejection Is Not Based On The Pending Claims**

The claims on appeal are concerned with natural cork which has been polychromatically printed. Since the Examiner has located no prior art which is relevant to that product, the claims have been reinterpreted to give the term "cork" a very different meaning. To justify the new construction of the term, the Examiner has

cited a definition of cork found on the internet on the grounds that the PTO is entitled to give claims their broadest reasonable interpretation.

The Examiner's approach to claim construction is in error because it fails to recognize is that expression "broadest reasonable interpretation" is just a shorthand for the rule that the PTO should give claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316, 75 USPQ 2d 1321, 1329 (Fed. Cir. 2005)(Emphasis Added). "Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification" and its prosecution history. *Id.* 415 F.3d at 1313, 75 USPQ2d at 1326. When the requirement that the construction be made "in light of the specification as it would be interpreted by one of ordinary skill in the art" is observed, the Examiner's position, first advanced in the fifth Office Action, on the meaning of the term "cork" is both unreasonable and untenable.

The fact that the cork is natural cork is implicit and fully supported by the application as originally filed and moreover, the definition of "cork" was a topic of discussion during prosecution for quite some time.

Thus, the application as originally filed refers cylindrical items made of cork on pages 1, 2, 3 and 8. Figure 1 of the application is a picture of a number of corks with polychromatic images on them, i.e., what is being claimed. The four corks shown in that picture are made of natural cork. The specification shows that "cork" means natural cork.

In an Amendment in August 2003, references were distinguished on the grounds that they related to materials made of synthetic materials rather than cork. Similarly, in an Amendment filed in January 2005, the Lauer reference was distinguished on the grounds it related to synthetic materials rather than cork and the in Amendment filed in December 2005 that reference was once again distinguished on the grounds it dealt with a synthetic material rather than natural cork. The prosecution history also shows that “cork” means natural cork.

In the Final Rejection, the fifth Office Action in this case, it was stated for the first time that the claims did not explicitly disclose of what material the cork is made, whether natural cork or a plastic, and an internet dictionary cited in support of a very expansive definition that the term “cork” meant any type of stopper. That action ignored the admonitions of the Federal Circuit:

The main problem with elevating the dictionary to such prominence is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent. Properly viewed, the “ordinary meaning” of a claim term is its meaning to the ordinary artisan after reading the entire patent. Yet heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification.

...Dictionaries, by their nature, provide an expansive array of definitions. General dictionaries, in particular, strive to collect all uses of particular words, from the common to the obscure. By design, general dictionaries collect the definitions of a term as used not only in a particular art field, but in many different settings. In such circumstances, it is inevitable that the multiple dictionary definitions for a term will extend beyond the “construction of the patent [that] is confirmed by the avowed understanding of the patentee, expressed by him, or on his behalf, when his application for the original patent was pending.” ... Moreover, different dictionaries may contain somewhat different sets of definitions for the same words. A claim should not rise or fall based upon the preferences of a particular dictionary editor, or the court’s

independent decision, uninformed by the specification, to rely on one dictionary rather than another.

*Phillips v. AWH Corp.*, 415 F.3d at 1321-22, 75 USPQ 2d at 1332-33.

The record here illustrates the validity of part of the Court's warning -- Applicants made of record a page from the Merriam-Webster's Collegiate Dictionary, 10th Edition (2001) setting forth a definition of cork which excludes the concept on which the Final Rejection sought to rely<sup>1</sup>.

The Examiner's attempt to construe "cork" as meaning any stopper regardless of material of construction is unreasonable. When the term is given broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art, as is required, it means natural cork.

## **2. The Appealed Claims, Properly Construed, Are Patentable**

The primary reference, Sayre, does not teach or suggest the existence of a colored image on a cylindrical cork. Instead, it relates to a heat shrink capsule for closing flange bottle tops whose openings may, for example, be closed by a cork. The Examiner averred that the reference teaches a cork surface with decorations, designs, logos or the like on the surface although it failed to "explicitly disclose printing with a polychromatic image on the surface" but this is inaccurate and a vast overstatement of the disclosure in the reference. Nothing in that disclosure discloses, explicitly or implicitly, the existence of a colored decoration, be it monochromatic or polychromatic, nor is there any disclosure, explicit or implicit, of how any decoration was achieved. There is thus no teaching or suggestion in Sayre of either color or printing. The

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<sup>1</sup> Applicants offered by telephone to amend the claims in order to make it even more clear that the cork of the claims is natural cork. Because the Examiner advised that the proposed change constituted a new issue and would not be entered, such an amendment was not proffered.



decorations, etc., may have been paced on the cork surface by burning a design into the surface or even by adhering a printed image on paper to the surface with an adhesive. The Sayre reference is thus deficient in at least two aspects, namely it does not teach or suggest placing anything on the cork surface by printing and secondly, it does not teach or suggest a colored image on the surface, much less a polychromatic image, regardless of how such an image would be applied.

The Lauer reference does not overcome either of the deficiencies in Sayre. At best, it discloses printing indicia on a non-cork surface. The reference is concerned with a synthetic closure made of plastic, possibly encased in an envelope also made of plastic, which is used as substitute for cork in order to avoid various difficulties encountered with natural cork. All references to cork in Lauer are limited to being a description of cork's limitations or saying the plastic substitute can exhibit the appearance of or the desirable sealing properties of cork. When it is indicated that indicia can be formed on the synthetic material by, *inter alia*, conventional printing techniques, it must be appreciated that this is a reference to printing on plastic. The statement would also be understood by those of ordinary skill in the art as referring to an additional advantage exhibited by the synthetic plastic material which is not exhibited by cork. There is nothing in this reference which teaches or suggests that conventional printing techniques may be used to provide natural cork with indicia and beyond this deficiency, there is nothing which teaches or suggest that a colored image, much less a polychromatic image, may be achieved by printing on the cork.

Hence, one of the references on which the appealed rejection relies says, at best, there can be something on the surface of a cork. The other reference says you can print something on a plastic substitute for cork. Any combination of these references results in substituting plastic for cork and then printing on the plastic, but that is not

the claimed invention. The alleged justifications for combining the references, namely, that it is obvious to combine these references to realize a colored design on cork or a “visual appealing appearance of the cork”, is not based on any disclosure in the references but rather is an after-the-fact expansive revision of their teachings using both hindsight and the present invention as a template. This is also apparent from the selection, for no stated reason, of conventional printing rather than embossing or etching (Lauer, col. 7, 41-43). Indeed, it is not even obvious-to-try (which is insufficient under § 103 in any event) printing on a natural cork surface in light of Lauer in that there is nothing which would motivate one skilled in the art to even attempt a conventional printing process with cork. The surface of the synthetic plastic material in Lauer is relatively hard and non-pliable while the surface of cork is relatively soft and pliable, thereby presenting very different problems to one who might seek to apply something to these surfaces.

Nothing in Sayre or Lauer, whether considered alone or in combination, teaches or suggests that a natural cork having a polychromic image on its non-calibrated cylindrical surface can be achieved.

The Examiner’s Final Rejection is untenable and should be reversed.

#### VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A.

A copy of the allowed claims is also in Appendix A.

IX. EVIDENCE

A copy of evidence pursuant to §§ 1.130, 1.131, or 1.132 and/or evidence entered by or relied upon by the examiner or Applicants that is relevant to this appeal is attached hereto as Appendix B.

X. RELATED PROCEEDINGS

No related proceedings are referenced in II. above, or copies of decisions in related proceedings are not provided, hence no Related Proceedings Appendix is included.

Dated: September 11, 2006

Respectfully submitted,

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**APPENDIX A**

**Claims Involved in the Appeal of Application Serial No. 10/031,592:**

10. Cork with printed image on its non-calibrated cylindrical surface, characterized by that the image is polychromatic and produced by the method of claim 2.

11. A cylindrical cork with printed image on its non-calibrated cylindrical surface, characterized by the image being polychromatic.

**Claim 2 incorporated by reference in Appealed Claim 10:**

2. Method for printing of polychromatic images on cork, wherein colours separation has previously been made, that by using  $i$  basic colours, where  $i = 2$  to  $n$  allows the formation of polychromatic image, the corks are delivered to an operating zone, and the corresponding inks according to the number of the basic colours are conducted to printing rollers by means of transfer rollers, by oscillation, inks are spread over the cylindrical surface of the cartridges for the achievement and the maintenance of a regular ink layer characterized by, that corks (1) are successively supplied one after the other vertically in the operating zone by gravitation at which the cork (1) that will be printed is fixed with its axis in vertical position with the possibility of unlimited rotation around the axis of its cylindrical surface, establishing simultaneous contact with radially placed fixing devices (7<sub>j</sub>) where  $j = 3$  to  $m$  along the effective diameter of the cork (1), by which all fixing devices (7<sub>j</sub>) come into contact in their corresponding contact points thus eliminating the deviations in the cylindrical shape of the surrounding surface of the cork (1), then all printing rollers (6<sub>i</sub>) with diameter equal to

the diameter of the cork (1) enter into simultaneous contact with the cylindrical surface at the level of the effective diameter of the cork (1), following a simultaneously rotation of the cork (1) at one revolution by the fixing devices (7<sub>i</sub>), that make the turn along with the printing rollers (6<sub>i</sub>) at equal peripheral speed in their contact points with the cork (1) surface, while all printing rollers (6<sub>i</sub>) spread simultaneously the print of the corresponding colour (2<sub>i</sub>) on the colour zone of the cork (1) surface corresponding to each roller (6<sub>i</sub>), according to the previous colour separation, and at the end of the turn, the polychromatic image (3) on the surface of the cork (1) is fully made, and then all printing rollers (6<sub>i</sub>) and fixing devices (7<sub>i</sub>) are drawn back from the cork (1), its axis is released and is pulled back from the operating zone, at which in the interval to the next loading of the operating zone, the printing rollers (6<sub>i</sub>) make contact with the transporting rollers (5<sub>i</sub>) to cover their printing relief with the corresponding ink colour, and during the printed interval, when the printing rollers (6<sub>i</sub>) are not in contact with the transporting rollers (5<sub>i</sub>), the latter make contact with intermediate rollers (8<sub>i</sub>) that are in constant contact with the supply surface of the corresponding ink cartridges (4<sub>i</sub>) for each colour and transfer ink to the corresponding intermediate rollers (8<sub>i</sub>) during the whole rotation of each ink cartridge (4<sub>i</sub>), and all the time while the rotation of each ink cartridge (4<sub>i</sub>) is taking place, the thickness and regularity of the ink layer on its transferring surface is additionally maintained within the normal range by oscillating spread, being the axis of at least one printing roller (6) during the printing process fixed strongly in radial position to the cork (1), and the axes of the remaining printing rollers (6) exercise a selective radial pliability to the cork (1) surface.

**APPENDIX B**

Merriam-Webster's Collegiate Dictionary, 10th Edition (2001) page 257

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# hemp objects (as picajoles or air currents) to the right in the northern hemisphere and to the left in the southern hemisphere **co-ri-um** \k'or-6-s'm, \k'or-\n, pl co-ri-a \t-s-\n [NL, fr. L, leather — more at CUIRASS] (1836): DERMIS **corn** \k'ork\ n [ME, cork, bark, prob. fr. Ar *qurq*, fr. L *cortic*, cortex: bark — more at CUIRASS] (14c) 1 a: the elastic tough outer tissue of the cork oak that is used esp. for stoppers and insulation b: PHELLEM 2: a usual cork stopper for a bottle or jug 3 a fishing float **corn w** (1535) 1: to furnish or fit with cork or a cork 2: to stop up with a cork 3: to blacken with burnt cork **corn-age** \k'ork-kij\ n (1838): a charge (as by a restaurant) for opening a bottle of wine bought elsewhere **corn-board** \k'ork-,b'ord-,b'ord\ n (ca. 1893): a heat-insulating material made of compressed granulated cork; also: a bulletin board made with this material **corn cambium** n (1878): PHELLOGEN **corned** \k'orkt\ adj (1830): CORKY 2 **corn-er** \k'ork-k'or-\n (1881) 1: one that corks containers (as bottles) 2: one that is excellent or remarkable **corn-ing** \k'ork-kin\ adj or adv (1895): extremely fine — often used as an intensive esp. before *good* (had a ~ good time) **corn oak** n (1873): an oak (*Quercus suber*) of southern Europe and northern Africa that is the source of the cork of commerce **corn-screw** \k'ork-,skrũ-\n (1720): a device for drawing corks from bottles that has a pointed spiral piece of metal turned by a handle **corkscrew** adj (1815): resembling a corkscrew: SPIRAL **corkscrew vt** (1837) 1: WIND 2: to draw out with difficulty 3: to twist into a spiral ~ vi: to move in a winding course **corn-wood** \k'ork-,wud\ n (1756): any of several trees having light or corky wood; esp.: a small or shrubby tree (*Leitneria floridana*) of the southeastern U.S. that has extremely light soft wood **corny** \k'ork-kẽ\ adj **corn-k-i-er**; -est (1756) 1: resembling cork 2: having an unpleasant odor and taste (as from a tainted cork) (~ wine) — **corn-k-i-ness** \kẽ-nẽs\ n **corn** \k'orm\ n [NL *cornus*, fr. Gk *kornos* tree trunk, fr. *keirein* to cut — more at SHEAR] (1830): a rounded thick modified underground stem base bearing membranous or scaly leaves and buds and acting as a vegetative reproductive structure — compare BULB, TUBER **corn-el** \k'or-mel, \k'or-mel\ n [dim. of *corn*] (ca. 1900): a small or secondary corn produced by a larger corn **corn-mo-rant** \k'orm-rant, \k'orm-mə-, \k'orm-mə-,rant\ n [ME *corneraunt*, fr. MF *cornorant*, fr. OF *cornareng*, fr. corn raven + *maren* of the sea, fr. L *marinus* — more at CORBEL, MARINE] (14c) 1: any of a family (Phalacrocoracidae) of dark-colored web-footed water birds that have a long neck, hooked bill, and distensible throat pouch 2: a gluttonous, greedy, or rapacious person **corn** \k'orm\ n, often attrib [ME, fr. OE; akin to OHG & ON *korn* grain, L *granum*] (bef. 12c) 1 chiefly dial: a small hard particle: GRAIN 2: a small hard seed 3 a: the seeds of a cereal grass and esp. of the important cereal crop of a particular region (as wheat in Britain, oats in Scotland and Ireland, and Indian corn in the New World and Australia) b: the kernels of sweet corn served as a vegetable while still soft and milky 4: a plant that produces corn 5: CORN WHISKEY 6 a: something (as writing, music, or acting) that is corny b: the quality or state of being corny: CORNINESS **corn v** (1560) 1: to form into grains: GRANULATE 2 a: to preserve or season with salt in grains b: to cure or preserve in brine containing preservatives and often seasonings (~ed beef) 3: to feed with corn (~ the horses) **corn n** [ME *corne*, fr. MF, horn, corner, fr. L *cornu* horn, point — more at HORN] (15c): a local hardening and thickening of epidermis (as on a toe) **corn-ball** \k'orn-,b'ol\ n (ca. 1949): an unsophisticated person; also: something corny **cornball** adj (1951): CORNY **corn borer** n (1919): any of several insects that bore in maize: as a: EUROPEAN CORN BORER b: SOUTHWESTERN CORN BORER **corn bread** n (1750): bread made with cornmeal **corn chip** n (1950): a piece of a dry crisp snack food prepared from a seasoned cornmeal batter **corn-cob** \k'orn-,k'ab\ n (1793) 1: the axis on which the kernels of Indian corn are arranged 2: an ear of Indian corn **corn-cob pipe** n (1832): a tobacco pipe with a bowl made of a corn-cob **corn cockle** n (1713): an annual hairy weed (*Agrostemma githago*) of the pink family with purplish red flowers that is found in grainfields **corn-crake** \k'orn-,krāk\ n (15c): a common Eurasian short-billed rail (*Crex crex*) that frequents grainfields **corn-crib** \k'rib\ n (1681): a crib for storing ears of Indian corn **corn dodger** n (1834) chiefly Southern & Midland: a cake of corn bread that is fried, baked, or boiled as a dumpling **corn dog** n (1967): a frankfurter dipped in cornmeal batter, fried, and served on a stick **cor-ne-us** \k'or-nẽ-s\ n [ME, fr. ML, fr. L, fem. of *corneus* horny, fr. *cornu*] (14c): the transparent part of the coat of the eyeball that covers the iris and pupil and admits light to the interior — see EYE illustration — **cor-ne-al** \t-s-\n adj **corn ear-worm** \fj-,w'orm\ n (1802): a noctuid moth (*Heliothis zea*) whose large striped yellow-headed larva is esp. destructive to Indian corn, tomatoes, tobacco, and cotton bolls **corn-el** \k'or-nel-, \nẽl\ n [ultim. fr. L *cornus* corny shrub; akin to Gk *kranon* cornel, *cornu* tree] (1551): any of various shrubs or trees (genus *Cornus*) of the dogwood family with very hard wood and perfect flowers; *specif*: DOGWOOD **cor-ne-li-an** \k'or-nẽl-yən\ n (15c): CARNELIAN **cor-ne-us** \k'or-nẽ-s\ adj [L *corneus*] (1646): of a horny texture **corn-er** \k'or-n'or-\n [ME, fr. OF *cornere*, fr. *corn* horn, corner] (13c) 1 a: the point where converging lines, edges, or sides meet: ANGLE b:

lə| about ʰ| kitten, F table ʌr| further ʌ| ash ā| ace ā| mop, man  
laʊ| out ʃh| chin ɛ| bet ē| easy ɜ| go ɪ| hit ɪ| ice ɪ| job  
ŋ| sing ō| go ɔ| law ɔ̄| boy ʈh| thin ʈh| the ʊ| loot ʊ| foot  
y| yet ʒh| vision ȁ, ǣ, æ, œ, u, ū, ʏ see Guide to Pronunciation